

WHAT IS CLAIMED IS:

1. A cable modem tuner comprising an upstream circuit for transmitting a data signal to a CATV (cable television) station, wherein said upstream circuit includes  
a gain controllable gain control circuit receiving said data signal,  
5 a power amplifying circuit power-amplifying the data signal having gain controlled by said gain control circuit, and  
a control circuit for controlling transmission/interruption of said data signal.

2. A cable modem tuner comprising a receiving unit for receiving a down signal from a CATV (cable television) station, wherein said receiving unit includes  
an up converter for converting said down signal to a first  
5 intermediate frequency signal of lower frequency,  
a filter for selecting the first intermediate frequency signal output from said up converter, and  
a down converter converting the first intermediate frequency signal selected by said filter to a second intermediate frequency signal of lower  
10 frequency for output.

3. The cable modem tuner according to claim 2, wherein said up converter includes  
a broadband high frequency amplifying circuit having a reception frequency band, for amplifying said down signal,  
5 a gain variable broadband variable gain amplifying circuit receiving the down signal from said broad band high frequency amplifying circuit,  
a local oscillation circuit outputting a local oscillation signal having higher frequency than said down signal, and  
a mixer circuit mixing the down signal output from said broadband  
10 variable gain amplifying circuit with the local oscillation signal output from said local oscillation circuit.

4. The cable modem tuner according to claim 2, wherein  
said down converter includes a first intermediate frequency  
amplifying circuit amplifying the first intermediate frequency signal  
selected by said filter,

5 a local oscillation circuit outputting a local oscillation signal having  
lower frequency than said first intermediate frequency signal,

10 a mixer circuit mixing the first intermediate frequency signal output  
from said first intermediate frequency amplifying circuit with the local  
oscillation signal output from said local oscillation circuit and outputting a  
second intermediate frequency signal,

a second intermediate frequency amplifying circuit amplifying the  
second intermediate frequency signal output from said mixer circuit, and

a filter for selecting said second intermediate frequency signal  
output from said second intermediate frequency amplifying circuit.

5. The cable modem tuner according to claim 4, further comprising  
a gain variable intermediate frequency gain amplifying circuit  
receiving the second intermediate frequency signal from said second  
intermediate frequency amplifying circuit.

6. The cable modem tuner according to claim 2, wherein  
said filter includes a bandpass filter formed of an oscillation circuit  
including a strip line, a print coil or an air core coil.

7. A cable modem tuner including an upstream circuit for  
transmitting a data signal to a CATV (Cable Television) station and a  
receiving unit for receiving a down signal from said CATV station,  
comprising:

5 a duplexer for branching the data signal to said CATV station and  
the down signal from said CATV station;

a return pass circuit outputting said data signal to said duplexer;

and

a receiving unit receiving the down signal branched by said

10 duplexer.

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